

IN THE CLAIMS:

Please cancel Claim 2 without prejudice or disclaimer of the subject matter recited therein.

Please amend Claims 1, 3-5 and 8-16 and add Claims 17-20 as follows.

1. (Currently Amended) An apparatus for controlling motion of an object, said apparatus comprising:

a first actuator for moving an object;

an elastic-motion measuring unit for measuring elastic motion of the object; and

a rigid-motion measuring unit, distinct from said elastic-motion measuring unit, for measuring rigid motion of the object; and

a control unit for controlling said first actuator based on an elastic motion measured by said elastic-motion measuring unit and rigid motion measured by said rigid-motion measuring unit.

Claim 2. (Cancelled).

3. (Currently Amended) An apparatus according to Claim 1, further comprising:

a second actuator for suppressing elastic motion of the object,

wherein said control unit controls said second actuator based on an elastic motion measured by said elastic-motion measuring unit.

4. (Currently Amended) An apparatus according to Claim 1, wherein said control unit comprises a prediction unit for predicting ~~an~~ elastic motion of the object caused by said first actuator, and controls said first actuator based on a prediction made by said prediction unit.

5. (Currently Amended) An apparatus according to Claim 3, wherein said control unit comprises a prediction unit for predicting ~~an~~ elastic motion of the object caused by said first actuator, and controls said second actuator based on a prediction made by said prediction unit.

6. (Original) An apparatus according to Claim 1, wherein said elastic-motion measuring unit comprises a piezoelectric element.

7. (Original) An apparatus according to Claim 3, wherein said second actuator comprises a piezoelectric element.

8. (Currently Amended) An exposure apparatus for exposing a substrate to a pattern ~~of~~ due to an original, said exposure apparatus comprising ~~the~~ an apparatus defined in Claim 1.

9. (Currently Amended) An exposure apparatus according to Claim 8, wherein ~~the apparatus defined in Claim 1 includes~~ said exposure apparatus comprises a stage for holding one of the substrate and the original, as the object.

10. (Currently Amended) A device manufacturing method, comprising the steps of:

~~a step of~~ exposing a substrate to a pattern ~~of~~ due to an original using ~~the apparatus defined in Claim 1~~ an exposure apparatus defined in Claim 8; and
developing the exposed substrate.

11. (Currently Amended) An apparatus for controlling motion of an object, said apparatus comprising:

a first actuator for moving an object;
a second actuator for suppressing elastic motion of the object; and
a control unit for predicting elastic motion of the object caused by said first actuator and controlling at least one of said first and second ~~actuator~~ actuators based on a prediction of ~~the~~ elastic motion of the object caused by said first actuator.

12. (Currently Amended) An apparatus according to Claim 11, further comprising:

an elastic-motion measuring unit for measuring elastic motion of the object,

wherein said control unit controls said second actuator based on ~~an~~ elastic motion measured by said elastic-motion measuring unit.

13. (Currently Amended) An apparatus according to Claim 11, further comprising:

a rigid-motion measuring unit for measuring rigid motion of the object,
wherein said control unit controls said first actuator based on ~~[[a]]~~ rigid
motion measured by said rigid-motion measuring unit.

14. (Currently Amended) An exposure apparatus for exposing a substrate
to a pattern ~~of~~ due to an original, said exposure apparatus comprising ~~the~~ an apparatus defined in
Claim 11.

15. (Currently Amended) An exposure apparatus according to Claim 14,
wherein ~~the~~ said exposure apparatus comprises ~~defined in Claim 11 includes~~ a stage for holding
one of the substrate and the original, as the object.

16. (Currently Amended) A device manufacturing method, comprising the
steps of:
~~a step of~~ exposing a substrate to a pattern ~~of~~ due to an original using ~~the~~
an exposure apparatus defined in Claim 14; and
developing the exposed substrate.

17. (New) An apparatus for controlling motion of an object, said apparatus
comprising:
a first actuator for moving an object;
a rigid-motion measuring unit for measuring rigid motion of the object;
and

a control unit for predicting elastic motion of the object caused by said first actuator and controlling said first actuator based on rigid motion measured by said rigid-motion measuring unit and the predicted elastic motion.

18. (New) An exposure apparatus for exposing a substrate to a pattern due to an original, said exposure apparatus comprising an apparatus defined in Claim 17.

19. (New) An exposure apparatus according to Claim 18, wherein said exposure apparatus comprises a stage for holding one of the substrate and the original, as the object.

20. (New) A device manufacturing method comprising the steps of:
exposing a substrate to a pattern due to an original using an exposure apparatus defined in Claim 18; and
developing the exposed substrate.